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BEFORE THE ARIZONA CORPORATION COMMISSION

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3 WILLIAM A. MUNDEAR <sup>Arizona Corporation Commission</sup>  
Chairman  
4 JIM IRVIN  
Commissioner  
5 MARC SPITZER  
Commissioner

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JUN 11 2002

AZ CORP COMMISSION  
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7  
8 IN THE MATTER OF THE GENERIC  
9 PROCEEDINGS CONCERNING ELECTRIC  
10 RESTRUCTURING ISSUES

Docket No. E-00000A-02-0051

11 IN THE MATTER OF ARIZONA PUBLIC  
12 SERVICE COMPANY'S REQUEST FOR A  
13 VARIANCE OF CERTAIN REQUIREMENTS OF  
14 A.A.C. R14-2-1606

Docket No. E-01345A-01-0822

15 IN THE MATTER OF THE GENERIC  
16 PROCEEDING CONCERNING THE ARIZONA  
17 INDEPENDENT SCHEDULING  
18 ADMINISTRATOR

Docket No. E-00000A-01-0630

19 IN THE MATTER OF TUCSON ELECTRIC  
20 POWER COMPANY'S APPLICATION FOR A  
21 VARIANCE OF CERTAIN ELECTRIC  
22 COMPETITION RULES COMPLIANCE DATES

Docket No. E-01933A-02-0069

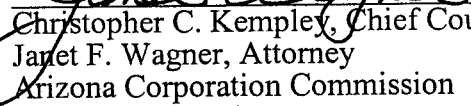
23 IN THE MATTER OF THE APPLICATION OF  
24 TUCSON ELECTRIC POWER COMPANY FOR  
25 APPROVAL OF ITS STRANDED COST  
26 RECOVERY

Docket No. E-01933A-98-0471

**NOTICE OF FILING  
REBUTTAL TESTIMONY**

27  
28 Staff hereby provides notice of filing Rebuttal Testimony in this docket. An original and ten  
copies are submitted of the Rebuttal Testimony of Matthew Rowell, Jerry D. Smith, Paul R.  
Peterson, Neil H. Talbot and David A. Schlissel.

1 RESPECTFULLY SUBMITTED this 11th day of June, 2002.

2  
3  
4  
5   
6 Christopher C. Kempley, Chief Counsel  
7 Janet F. Wagner, Attorney  
8 Arizona Corporation Commission  
9 1200 West Washington  
10 Phoenix, Arizona 85007  
11 (602) 542-3402

12 Original and ten copies of the foregoing  
13 filed this 11th day of June, 2002,  
14 with:

15 Docket Control  
16 Arizona Corporation Commission  
17 1200 West Washington  
18 Phoenix, AZ 85007

19 Copy of the foregoing mailed and by  
20 electronic e-mail this 11<sup>th</sup> day of June,  
21 2002, to:

22 All parties of record

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26  
27  
28

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

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IN THE MATTER OF THE GENERIC )	DOCKET NO. E-00000A-02-0051
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POWER COMPANY'S APPLICATION FOR A )	
A VARIANCE OF CERTAIN ELECTRIC )	
COMPETITION RULES )	
<u>AND COMPLIANCE DATES.</u> )	
IN THE MATTER OF THE APPLICATION )	DOCKET NO. E-01933A-98-0471
OF TUCSON ELECTRIC POWER )	
COMPANY FOR APPROVAL OF ITS )	
<u>STRANDED COST RECOVERY.</u> )	

REBUTTAL TESTIMONY

OF

PAUL R. PETERSON

SYNAPSE ENERGY ECONOMICS, INC.

APPEARING ON BEHALF OF

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSIONS

JUNE 11, 2002

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1    **I.        QUALIFICATIONS**

2    **Q.        Please state your name, position and business address.**

3    A.        My name is Paul R. Peterson. I am a Senior Associate with Synapse Energy  
4              Economics, 22 Pearl Street, Cambridge, MA 02139.

5    **Q.        On whose behalf are you testifying in this case?**

6    A.        I am testifying on behalf of the Utilities Division of the Arizona Corporation  
7              Commission ("Staff").

8    **Q.        Have you testified previously in this proceeding?**

9    A.        Yes. I filed Direct testimony on behalf of the Staff on May 29, 2002. That  
10             testimony contains my qualifications and resume.

11   **II.       SUMMARY**

12   **Q.        What is the purpose of your testimony?**

13   A.        I have been asked by the ACC Staff to respond to portions of the Direct testimony  
14              of Arizonans for Electric Choice and Competition ("AECC") witness Higgins and  
15              Arizona Public Service Company ("APS") witnesses Davis and Hieronymus.

16   **Q.        Please summarize your responses to the testimony of these witnesses.**

17   A.        Mr. Higgins places a great deal of reliance on the FERC's ability to develop and  
18              implement appropriate wholesale market structures. Based on the FERC's poor  
19              performance to date, I do not share Mr. Higgins optimism or confidence. Mr.  
20              Davis appears to state that the decision to require a transfer of generation assets  
21              was made over three years ago and cannot and should not be re-examined in light  
22              of subsequent events. I maintain that the Commission has a responsibility to  
23              make the best decision it can today, based on current information, to protect the  
24              interests of Arizonans. I have several responses to Mr. Hieronymus' testimony  
25              regarding his market power analyses and the performance of bid-based markets.

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1     **III.     RESPONSES TO DIRECT TESTIMONY OF OTHER WITNESSES**

2     **Q.     Please describe your concerns with Mr. Higgins testimony on behalf of**  
3     **AECC.**

4     A.     On page 5, lines 13-15, and on page 12, lines 16-19, Mr. Higgins recommends  
5             that the Commission require rigorous market power tests with respect to sub-  
6             markets within APS and TEP service territories after divestiture of generation  
7             occurs. While I agree that these rigorous tests should be performed, they should  
8             be done prior to divestiture to allow the Commission to assess the potential for  
9             market power abuses before allowing or permitting the transfer of generation  
10            assets. Moreover, I do not share Mr. Higgins confidence on page 11, lines 17-19,  
11            that horizontal market power problems will be resolved by the FERC. FERC has  
12            not demonstrated an ability to effectively address market power problems in  
13            existing wholesale markets.

14    **Q.     Why won't the new FERC Markets Oversight Office be sufficient to identify**  
15    **market problems and recommend solutions?**

16    A.     It might be effective, but it is untested. To date, it has been the ISOs, through  
17             their market monitoring units, who have identified market power problems and  
18             anti-competitive behavior by participants and made recommendations to the  
19             FERC to curb abuses. I concur with Mr. Higgins conclusion, page 5, lines 19-22,  
20             that Arizona needs an RTO to adopt effective market monitoring and mitigation  
21             procedures and that the Commission should participate in the development of  
22             those procedures.

23    **Q.     Please describe your concerns with Mr. Davis' testimony.**

24    A.     On pages 3-9, Mr. Davis makes the argument that decisions formulated in 1998  
25             and 1999 regarding the divestiture of generation assets should be strictly adhered  
26             to without reconsideration in light of subsequent events. I disagree; sound public  
27             policy decision-making should evaluate current decisions in light of all the  
28             information that is available. Certainly this Commission should consider the  
29             problems that have occurred since 1999 in both wholesale and retail electric

1 markets as many states and the FERC have attempted to implement competitive  
2 practices. While California has drawn most of the media attention for its  
3 wholesale and retail market failures, other bid-based wholesale markets have  
4 experienced significant problems<sup>1</sup> and retail competition has significantly lagged  
5 behind the expectations of 1999.<sup>2</sup> Even accepting Mr. Davis's assertion that APS  
6 has commenced the process of divestiture in reliance on agreements made more  
7 than three years ago, the Commission should not be bound to continue that  
8 process if the evidence in this proceeding persuades it that such a course could be  
9 harmful to Arizona consumers.

10 **Q. Please describe your concerns with Mr. Hieronymus' testimony on behalf of**  
11 **APS.**

12 A. I have two principal concerns. First, Mr. Hieronymus regards the California  
13 debacle as a singular event that is unique to that state. Second, Mr. Hieronymus  
14 relies on traditional market power definitions and analyses in evaluating the  
15 potential for problems in wholesale electric markets, thereby ignoring the special  
16 volatility issues associated with the production and delivery of electricity over an  
17 integrated bulk power system.

18 **Q. Why are the problems that California experienced not limited to that state's**  
19 **particular market rules and history?**

20 A. While I agree that California's market structure and failure to build new supply  
21 resources contributed to the severity of its problems, all bid-based wholesale  
22 markets have experienced problems with market design flaws and short-term  
23 imbalances between demand and supply that have been exploited by market  
24 participants to raise prices above competitive levels. The FERC has been just as  
25 slow to address problems in the Northeast wholesale markets as it was in  
26 California. According to economic theory, properly structured competitive  
27 markets are largely self-regulating. People who believe "that the competitive

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<sup>1</sup> See, Direct testimony of Paul Peterson in this proceeding.

<sup>2</sup> See, Direct testimony of Neil Talbot in this proceeding.

1 wholesale and retail energy markets are superior to regulated monopoly”<sup>3</sup> are  
2 often reluctant to acknowledge that, absent proper structures or effective  
3 mitigation procedures, the transition from monopoly to competitive markets can  
4 produce extremely uneconomic results during the early years of implementation.  
5 This is especially true for wholesale electricity markets.

6 **Q. Why are electricity markets particularly vulnerable to uneconomic results?**

7 A. Maintaining excess capacity is expensive. The operators of power systems  
8 maintain a quantity of excess capacity (reserves) based on historical averages of  
9 load, which is very weather dependent, and long-term estimates of generation unit  
10 availability and transmission system failures. When any of these factors deviate  
11 from the norm, load can exceed available supply and create a capacity deficiency  
12 event. In New England, the ISO plans for up to thirty capacity deficiency events  
13 each year, most of which will only last for a few hours. During such times, all  
14 available generation resources are needed. Prior to restructuring, reliability was  
15 maintained “at any cost”, which meant that even generators with high operating  
16 costs were required to run. In the new world of bid-based wholesale markets,  
17 reliability is maintained “at any bid”, which means that every owner of a  
18 generation unit has market power. If bids are unconstrained, there is no limit to  
19 the “cost” of keeping the lights on. FERC explicitly recognized this issue when it  
20 imposed bid caps in the New York and New England wholesale markets.

21 **Q. Can you give examples of these phenomena?**

22 A. There are two examples in New England that I am very familiar with. The first  
23 occurred in May 2000 during an unusual heat wave for that time of the year. A  
24 bid of \$6,000/MWH set the clearing price for about four hours. Electricity costs  
25 were estimated to have increased by \$90 million dollars in the spot market over  
26 that short time period; costs for future bilateral arrangements were also likely to  
27 have increased as a result of this price spike. The ISO determined that the bid

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<sup>3</sup> Hieronymus Direct testimony at 4, lines 14-15.



1 was consistent with the market rules in effect at the time.<sup>4</sup> The second example  
2 occurred over three days in July 2001. A combination of hot weather and unit  
3 outages caused the hourly clearing price to jump from \$40 –200 /MWH to  
4 \$1,000/MWH (the existing bid cap) over a fifteen minute period and to remain  
5 there for a total of thirteen hours. The ISO estimated that \$80 million dollars in  
6 higher spot market costs were incurred over those thirteen hours. Several  
7 investigations have determined that there were no traditional market power  
8 abuses.<sup>5</sup>

9 **Q. What do you conclude about the volatility of these markets and the potential**  
10 **for market power abuse?**

11 A. First, I am not aware of any competitive markets where prices rise by over 2000  
12 percent in a matter of minutes on a regular basis. Whether or not these two  
13 examples are an exercise of “market power”, based on economic theory or  
14 FERC’s tests, seems a question of semantics; they are certainly not examples of  
15 competitive and efficient markets. Second, it demonstrates that participants in  
16 bid-based electric markets can reap windfall profits even if they do not withhold  
17 capacity or sustain the high prices, as required by Mr. Hieronymus’s definition of  
18 market power on pp.23-24 of his testimony. Third, while these are two egregious  
19 examples of market design flaws or market abuses, there are probably many other  
20 examples of smaller scale abuses by market participants who have discovered  
21 ways to game the system through manipulation or circumvention of the rules. I  
22 think there is some truth to the assertion that has surfaced in the response to the  
23 ENRON memos that “everyone is doing it”.

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<sup>4</sup> See, ISO New England documents “Events of May 8-9, 2000”, 6/1/2000, and “Supplemental Report on May 8”, 7/28/200.

<sup>5</sup> See, ISO New England document “Summer 2001 Report”, 9/14/01, and “Competitive Assessment of the New England Market” by David Patton, IMA, May 2002.

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1    **IV.    RECOMMENDATIONS**

2    **Q.    What are your recommendations to the Commission?**

3    A.    I agree with the testimony in this proceeding from Staff and other witnesses that  
4        well-structured and properly functioning wholesale markets are a pre-condition  
5        for effective retail competition that can provide benefits to consumers. As I noted  
6        in my Direct testimony, FERC prefers to rely on structural solutions, such as  
7        RTOs, open access to transmission, adequate supply, and demand response to  
8        curb market power abuses.<sup>6</sup> Where these structural elements are not present, and  
9        the testimony in this proceeding has shown that they are currently lacking in the  
10       Western wholesale markets, FERC states that effective market rules, market  
11       monitoring, and market mitigation must be developed and implemented. Mr.  
12       Hieronymus agrees that these structures and rules “have taken on a new urgency .  
13       . . [and are] seen as the ‘front line’ of defense against both the exercises of market  
14       power and gaming of inadequate and inefficient market rules”.<sup>7</sup> My  
15       recommendation to the Commission is to make sure that either the structural  
16       elements or appropriate rules are in place at the wholesale level before making  
17       any irrevocable decisions regarding the transfer of utility generation assets. I  
18       further recommend that the Commission require market power analyses based on  
19       tests that account for the unique attributes of wholesale and retail electric systems.

20   **Q.    Does this complete your Rebuttal testimony?**

21   A.    Yes.  
22  
23  
24  
25

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<sup>6</sup>        Peterson Direct testimony at 9-10.

<sup>7</sup>        Hieronymus Direct testimony at 22, lines 15-18.

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

Commissioner

MARC SPITZER

Commissioner

IN THE MATTER OF THE GENERIC ) PROCEEDINGS CONCERNING ELECTRIC ) <u>RESTRUCTURING ISSUES.</u> )	DOCKET NO. E-00000A-02-0051
IN THE MATTER OF ARIZONA PUBLIC ) SERVICE COMPANY'S REQUEST FOR A ) VARIANCE OF CERTAIN REQUIREMENTS ) <u>OF A.A.C. R14-2-1606.</u> )	DOCKET NO. E-01345A-01-0822
IN THE MATTER OF THE GENERIC ) PROCEEDING CONCERNING THE ) ARIZONA INDEPENDENT SCHEDULING ) <u>ADMINISTRATOR.</u> )	DOCKET NO. E-00000A-01-0630
IN THE MATTER OF TUCSON ELECTRIC ) POWER COMPANY'S APPLICATION FOR A ) A VARIANCE OF CERTAIN ELECTRIC ) COMPETITION RULES ) <u>AND COMPLIANCE DATES.</u> )	DOCKET NO. E-01933A-02-0069
IN THE MATTER OF THE APPLICATION ) OF TUCSON ELECTRIC POWER ) COMPANY FOR APPROVAL OF ITS ) <u>STRANDED COST RECOVERY.</u> )	DOCKET NO. E-01933A-98-0471

REBUTTAL TESTIMONY

OF

DAVID A. SCHLISSEL

SYNAPSE ENERGY ECONOMICS, INC.

APPEARING ON BEHALF OF

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JUNE 11, 2002

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1    **I.        INTRODUCTION**

2    **Q.        Please state your name, position and business address.**

3    A.        My name is David A. Schlissel. I am a Senior Consultant at Synapse Energy  
4              Economics, Inc, 22 Pearl Street, Cambridge, MA 02139.

5    **Q.        On whose behalf are you filing this Rebuttal Testimony?**

6    A.        I am submitting this Rebuttal Testimony on behalf of the Utilities Division of the  
7              Arizona Corporation Commission. ("Staff")

8    **Q.        Have you previously filed testimony in this proceeding?**

9    A.        Yes. I filed Direct Testimony in this proceeding on May 29, 2002.

10   **Q.        What is the purpose of this Rebuttal Testimony?**

11   A.        The purpose of this Rebuttal Testimony is to address several points made in the  
12              testimony filed by APS witness William Hieronymus and Panda Gila River  
13              witness Craig Roach.

14   **II.        FLAWS IN THE TESTIMONY OF APS WITNESS HIERONYMUS**

15   **Q.        Do you think that Mr. Hieronymus appropriately applies FERC's new SMA**  
16              **test to APS?**

17   A.        No. Mr. Hieronymus correctly cites the specific FERC language that describes  
18              the SMA test.<sup>1</sup> However, his application of that test to the APS control area does  
19              not present a meaningful result because it fails to reflect the transmission system  
20              constraints that severely limit the amount of capacity that can be imported into the  
21              Phoenix Valley and Yuma load pockets.

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<sup>1</sup>        Testimony of William H. Hieronymus, at page 32, line 12, to page 33, line 21.

1 **Q. How then should Mr. Hieronymus have structured his analysis?**

2 A. Instead of looking at the APS control area as a single market, Mr. Hieronymus  
3 first should have applied the SMA to APS's Phoenix Valley and Yuma  
4 transmission constrained service areas and then to the non-transmission  
5 constrained area that APS serves outside of these load pockets.

6 **Q. What would have been the results of such an analysis?**

7 A. As I explained in my Direct Testimony, the SMA test reveals that APS and its  
8 affiliates will be able to exercise market power in the Phoenix Valley and Yuma  
9 load pockets until more merchant generation is built within those load pockets  
10 and/or additional transmission import capacity is added.<sup>2</sup>

11 The absence of significant transmission constraints outside of the Phoenix Valley  
12 and Yuma load pockets could mean that APS would be less able to exercise  
13 market power in the relatively non-transmission constraints portions of its control  
14 area. However, as I noted in my Direct Testimony, APS rebuttal witness Deise in  
15 Docket No. E-01345A-01-0822 testified that only up to about 700 MW of APS'  
16 unconstrained loads in its Northern Arizona, Southern Arizona and Eastern  
17 Mining areas could be competitively bid.<sup>3</sup> This suggests that APS might even be  
18 able to exercise market power in these non-transmission constrained areas.

19 **Q. Do you think that the Commission should give any weight to Mr.**  
20 **Hieronymus's conclusion that APS would not be able to exercise market**  
21 **power in the larger western markets?**<sup>4</sup>

22 A. No. Even though APS may not be able to exercise market power in the larger  
23 western markets, it will be able to exercise market power in the Phoenix Valley

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<sup>2</sup> Direct Testimony of David A. Schlissel, at page 3, line 1, to page 9, line 18.

<sup>3</sup> Rebuttal Testimony of Cary Deise on Behalf of Arizona Public Service Company in Docket No. E-01345A-01-0822, at page 18, line 19, to page 19, line 14.

<sup>4</sup> Testimony of William H. Hieronymus, at page 30, lines 18-20.

1 and Yuma load pockets which together represent more than 2/3 of its retail load in  
2 Arizona.

3 **Q. Do there appear to be any contradictions in Mr. Hieronymus's testimony?**

4 A. Yes. At page 30, lines 5 and 6, Mr. Hieronymus stated that "California is, and is  
5 likely to remain, capacity short and shorter still in terms of economic energy."  
6 However, he then assumed in his SMA analysis, that there would be some 15,483  
7 MW of capacity available during the summer of 2003 for export from California  
8 into APS's control area.<sup>5</sup>

9 **Q. Do you agree with the claim by APS witness Hieronymus that "the most  
10 obvious means of dealing with potential market power is to require that the  
11 supplier dedicate a portion of its capacity to a long -term contract?"**

12 A. No. A long-term contract can "lock-in" purchasers to paying higher than  
13 competitive prices over long periods of time. For example, the California  
14 Department of Water Resources ("DWR") rushed into short-term and long-term  
15 power supply contracts during that State's energy crisis in 2001. This was a time  
16 when, it is now almost universally accepted, power suppliers were exercising both  
17 physical and economic market power to force up the prices that were being paid  
18 for power consumed in the State. These contracts are a widely recognized disaster  
19 that have committed the State of California to pay extremely high prices for  
20 power, in some instances for a very long time.

21 In fact, the California State Auditor, the California Public Utilities Commission  
22 ("PUC") and the Attorney General, among others, are currently challenging these  
23 flawed and significantly overpriced short-term and long-term contracts. For  
24 example, the California PUC recently filed a complaint at FERC against  
25 specified sellers of long-term power contracts to the California DWR.

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<sup>5</sup> Testimony of William H. Hieronymus, Exhibit No. WHH-3.

1 In this complaint, the CPUC addressed 32 contracts between the DWR and 22  
2 sellers. The California PUC's preliminary calculations indicated that collectively  
3 the challenged contracts are priced at levels exceeding just and reasonable prices  
4 by approximately \$21 billion.<sup>6</sup> The PUC further noted that the DWR was forced  
5 to procure enormous amounts of power in order to keep the lights on in California  
6 "under conditions of extreme market power."<sup>7</sup>

7 In the months in which DWR negotiated the bulk of the contracts  
8 (February – April 2001), spot market prices averaged over \$300/MWh  
9 every hour of every day-ten times higher than prior year prices.  
10 Suppliers took advantage of their market power and charged  
11 unreasonable prices, for unreasonably lengthy periods, and under  
12 unreasonable non-price terms and conditions. DWR was forced to  
13 accept these terms or let the state go black.

14 A December 2001 Report by the California State Auditor similarly has noted that  
15 the decision to enter into about 40 agreements with a value of \$35.9 billion in just  
16 30 days may have affected the composition and details of the contracts signed by  
17 the DWR:

18 The speed in which the department entered into contracts in response  
19 to the crisis precluded the planning necessary for a power-purchasing  
20 program of this size. As a result, it assembled a portfolio of power  
21 contracts that presents significant risks that will need careful  
22 management to avoid increased costs to consumers.<sup>8</sup>

23 The State Auditor's report further noted that the majority of the contracts entered  
24 into by the California DWR were not written to ensure a reliable source of power,  
25 but instead conveyed **lucrative financial terms** upon the suppliers to ensure that  
26 energy is delivered.<sup>9</sup> In addition, the terms of the contracts contain provisions

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<sup>6</sup> California Public Utilities Commission Press Release, dated February 24, 2002.

<sup>7</sup> Ibid.

<sup>8</sup> *California Energy Markets, Pressures Have Eased, but Cost Risks Remain*, at page 1.

<sup>9</sup> *California Energy Markets, Pressures Have Eased, but Cost Risks Remain*, at page 2.



1 that can increase the cost of power; thus they need careful management to avoid  
2 additional costs to consumers.<sup>10</sup>

3 **III. THE TESTIMONY OF PANDA GILA RIVER WITNESS ROACH**

4 **Q. Do you agree with the conclusions of Panda Gila River witness Craig Roach/**

5 A. Yes. I agree with Dr. Roach's conclusions that (a) APS has generation and  
6 transmission market power; (b) if APS is allowed to unconditionally transfer its  
7 generation facilities to an Affiliate, it will also be transferring its market power to  
8 that Affiliate; and (c) because the Commission will have less authority after the  
9 transfer to prevent harm to consumers from the exercise of market power by that  
10 Affiliate, it must ensure that, prior to such transfer, APS' market power will be  
11 mitigated.<sup>11</sup>

12 **Q. Is your application of the SMA test to the Phoenix Valley load pocket**  
13 **consistent with Dr. Roach's application of the same test to what he terms the**  
14 **APS Valley Market?**

15 A. Yes. The Table on page 6 of my Direct Testimony and Dr. Roach's Table Three  
16 present similar information, albeit in slightly different formats. Table DAS-R1  
17 below presents my SMA analysis in the same format as was used by Dr. Roach  
18 and APS witness Hieronymus:

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21

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<sup>10</sup> *California Energy Markets, Pressures Have Eased, but Cost Risks Remain*, at page 2.

<sup>11</sup> Direct Testimony of Craig R. Roach on behalf of Panda Gila River, L.P., at page 3, line 21, to page 4, line 3.

Table DAS-R1  
Phoenix Valley SMA Test

	2003	2004	2005	2006	2007	2008	2009	2010
In-Area Capacity	1,275	1,275	1,275	1,275	1,275	1,275	1,275	1,275
Import Capacity	3,685	3,685	3,685	3,685	3,685	4,685	4,685	4,685
Total Supply	4,960	4,960	4,960	4,960	4,960	5,960	5,960	5,960
Projected Peak Load	4,112	4,256	4,405	4,559	4,719	4,884	5,055	5,232
Supply Margin	848	704	555	401	241	1,076	905	728
Can Peak Load be met without APS Capacity	No	No	No	No	No	No	No	No
Pass/Fail SMA	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail

Consequently, I concur with Dr. Roach's conclusion that APS has generation market power in the APS Valley Market.<sup>12</sup>

I also agree with Dr. Roach's observation that APS would fail the SMA test by even larger margins if its share of the transmission import capacity into the Phoenix Valley were considered.

**Q. Does this complete your rebuttal testimony?**

**A. Yes.**

<sup>12</sup> Direct Testimony of Craig R. Roach on behalf of Panda Gila River, L.P., at page 14, lines 16 and 17.

**BEFORE THE ARIZONA CORPORATION COMMISSION**

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

Commissioner

MARC SPITZER

Commissioner

IN THE MATTER OF THE GENERIC )	DOCKET NO. E-00000A-02-0051
PROCEEDINGS CONCERNING ELECTRIC )	
<u>RESTRUCTURING ISSUES.</u> )	
IN THE MATTER OF ARIZONA PUBLIC )	DOCKET NO. E-01345A-01-0822
SERVICE COMPANY'S REQUEST FOR A )	
VARIANCE OF CERTAIN REQUIREMENTS )	
<u>OF A.A.C. R14-2-1606.</u> )	
IN THE MATTER OF THE GENERIC )	DOCKET NO. E-00000A-01-0630
PROCEEDING CONCERNING THE )	
ARIZONA INDEPENDENT SCHEDULING )	
<u>ADMINISTRATOR.</u> )	
IN THE MATTER OF TUCSON ELECTRIC )	DOCKET NO. E-01933A-02-0069
POWER COMPANY'S APPLICATION FOR A )	
A VARIANCE OF CERTAIN ELECTRIC )	
COMPETITION RULES )	
<u>AND COMPLIANCE DATES.</u> )	
IN THE MATTER OF THE APPLICATION )	DOCKET NO. E-01933A-98-0471
OF TUCSON ELECTRIC POWER )	
COMPANY FOR APPROVAL OF ITS )	
<u>STRANDED COST RECOVERY.</u> )	

REBUTTAL TESTIMONY

OF

NEIL H. TALBOT

SYNAPSE ENERGY ECONOMICS, INC.

APPEARING ON BEHALF OF

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JUNE 11, 2002

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**I. Introduction and Purpose of Testimony**

**Q. Please state your name and business address.**

A. My name is Neil H. Talbot and my business address is Synapse Energy Economics, 22 Pearl Street, Cambridge, Massachusetts 02139.

**Q. Are you the same Neil H. Talbot who filed direct testimony in this proceeding on May 29, 2002?**

A. Yes.

**Q. On whose behalf are you testifying in these proceedings?**

A. I am a member of the Synapse Energy Economics team that has been retained by the Utilities Division ("Staff") of the Arizona Corporation Commission to investigate electricity restructuring issues in Arizona.

**Q. What is the purpose of your current testimony?**

A. This testimony, together with that of other members of the Staff team, is rebuttal of the direct testimony of other parties in this matter concerning the "Threshold Issues" or "Track A" issues -- "the transfer of assets and associated market power issues, as well as the issues of the Code of Conduct, the Affiliated Interest Rules, and the jurisdictional issues raised by Chairman Mundell..."

**Q. Whose testimony will you address?**

A. I will briefly address parts of the testimony of Panda Gila witness Craig Roach, AECC witness Kevin Higgins, Reliant Resources witness Curtis Kebler, RUCO witness Richard Rosen, TEP witnesses James Pignatelli, Steven Glaser and Michael DeConcini, and APS witnesses Jack Davis and William Hieronymus.

**Q. How is your testimony structured?**

A. I devote a section to each witness. However, in order to present my conclusions more conveniently, I organize my summary according to subjects, such as market power, rather than according to witnesses.

## **II. Summary and Conclusions**

**Q. Please summarize your rebuttal testimony on the issue of transfer of generation assets.**

A. My testimony supports the recommendations of Staff witness Matthew Rowell, and particularly his recommendation that "Prior to the transfer of any generation assets, the utilities should be required to file a market power study and market power mitigation plan for Commission approval." (Mr. Rowell's Direct Testimony, page 10, lines 3-5) Thus, I take issue with both the more restrictive proposals of witnesses like Dr. Roach on behalf of Panda Gila, and the less restrictive proposals of witnesses like Dr. Hieronymus on behalf of APS.

**Q. Please summarize your rebuttal testimony on market power issues.**

A. I argue that there should be a rebuttable presumption that the generation affiliate or other company to which a UDC transfers or divests its generation assets will have market power. Furthermore, I rely on the findings of Staff witnesses Schlissel, Peterson, and Rowell that in fact wholesale electricity markets in Arizona and the Southwest are not yet workably competitive. Accordingly, I take issue with the views of witnesses like Dr. Hieronymus who suggest, at least in some parts of their testimony, that market power problems are being resolved. Nor do I agree with Mr. Higgins that the whole matter is best left in the hands of FERC. On the other hand, I do not share Dr. Rosen's extreme skepticism about FERC and the wholesale markets.

**Q. Please summarize your rebuttal testimony on jurisdictional issues.**

A. I am in agreement with Mr. Pignatelli's assessment that, after transfer or divestiture of UDC assets, FERC would have exclusive jurisdiction over the rates charged for wholesale sales of energy from those assets, but that, as he says, "the Commission would have jurisdiction over the inclusion of those sales in rates in accordance with Arizona law."

1    **Q.     Do you address the issue of codes of conduct and affiliate rules?**

2    A.     No. That subject is covered by Staff witness Barbara Keene.

3    **III.    Panda Gila River Witness Craig Roach**

4    **Q.     Do you agree with Dr. Roach's conclusions that "APS has generation and**  
5           **transmission market power," and that "if APS is allowed to unconditionally**  
6           **transfer its generation facilities to an affiliate, it will also be transferring its**  
7           **market power to that affiliate..."?**

8    A.     Yes. Dr. Roach's diagnosis of APS market power is similar to that of Staff. Mr.  
9           David Schlissel will address the detailed calculations that Dr. Roach has used to  
10          support his conclusions regarding APS horizontal market power.

11   **Q.     Has Dr. Roach addressed the market of any other utility distribution**  
12          **company in Arizona?**

13   A.     No. Staff believes, however, that the TEP system has similar transmission  
14          constraints to those of the APS system. As I argued in my Direct Testimony, it  
15          would be prudent to have a rebuttable presumption that a utility or its generation  
16          affiliate will have market power unless and until appropriate mitigation measures  
17          are implemented.

18   **Q.     Do you agree, then, with Dr. Roach's recommendation that, "because the**  
19           **Commission will have less authority after the transfer to prevent harm to**  
20           **consumers from the exercise of market power by that affiliate, it *must* ensure**  
21           **that, prior to such transfer, APS' market power will be mitigated"?**  
22           **(emphasis added)**

23   A.     Yes. Staff certainly believes it would be good public policy to mitigate market  
24          power *before* transfer. As Staff witness Matthew Rowell said in his Direct  
25          Testimony, on page 10, lines 3 to 4, "Prior to the transfer of any generation assets,  
26          the utilities should be required to file a market power study and market power  
27          mitigation plan for Commission approval." Generally, it is important to make the

conditions of transfer, i.e. the implications of transfer for Standard Offer service, very clear and legally binding on a Utility Distribution Company (UDC) *before* transfer is permitted. Each UDC has an obligation to provide Standard Offer service to its retail customers at just and reasonable rates. If a UDC decides to transfer its assets (including must-run units if the Commission determines that to be appropriate) into an imperfectly competitive wholesale power market, it should be allowed to do so, provided the UDC is prepared to take the risk of not recovering the purchased power costs that exceed the UDC's traditional cost-based rates.

**Q. Do you agree with Dr. Roach's recommendation, on the bottom of page 4 and top of page 5 of his testimony, that APS should only be allowed to transfer its generation assets if it competitively procures 100% of the power it needs for Standard Offer customers?**

A. No. I think this requirement is too restrictive. Rather, as Staff witness Matthew Rowell proposed on page 10 of his Direct Testimony, a UDC should have the discretion to transfer generating units under appropriate conditions. The conditions are critical during the "transition period." This period is defined as "the period from now until the Commission determines that the wholesale market for power delivered to the UDCs' service territories is workably competitive." (Mr. Rowell's Direct Testimony, page 5, lines 18-20)

**Q. Starting on page 16 of his testimony, Dr. Roach describes "four specific mitigation measures" to prevent the exercise of market power by a UDC affiliate. Please comment.**

A. I believe Dr. Roach's specific proposals are less important than the underlying premise of his proposals, namely that a workably competitive electricity market can be established in Arizona, under certain conditions. I agree with him, and I also agree with him that the conditions are not yet in place.



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1 **IV. AECC Witness Kevin Higgins**

2 **Q. What is your overall assessment of Mr. Higgins' testimony?**

3 A I have a major area of agreement with Mr. Higgins, and a major area of  
4 disagreement. Let me first describe the area of agreement. Like Dr. Roach and  
5 myself, Mr. Higgins agrees that market power is a key issue. As he puts it, the  
6 answer to the question "how well the agreements and Electric Competition Rules  
7 will work in the future...turns on the issue of how potential market power is  
8 addressed." (Testimony, page 4, lines 6-10)

9 **Q. What is the area of disagreement?**

10 A. Mr. Higgins appears to take the view that market power issues will be adequately  
11 taken care of under existing arrangements, mostly under the aegis of FERC, and  
12 without significant initiatives by this Commission. For example, he says that,  
13 "(t)o the extent that market power were to become a more generalized problem in  
14 Arizona, parties could seek relief at FERC..." (Testimony, page 5, lines 4-7) I  
15 believe he is over-confident about the readiness of FERC to address serious  
16 market power concerns. This Commission needs to take steps to ensure that  
17 Arizona markets are competitive, and to make conditions regarding  
18 competitiveness, and/or other protections of retail customers, pre-conditions of  
19 asset transfer.

20 **Q. Why do you believe that FERC is not, or not yet, the answer to all wholesale**  
21 **market power problems?**

22 A. During the unfolding California crisis, it seemed at first as if FERC was part of  
23 the problem, not part of the solution. As Mr. Higgins acknowledges, "FERC's  
24 past record in addressing market power issues has been controversial and the  
25 target of significant criticism..." But he believes that FERC has now been  
26 galvanized into action. By contrast, Staff witness Paul Peterson describes the  
27 outstanding issues that still need to be addressed by FERC, and shows that it is  
28 likely to take some time before great reliance can be placed on FERC's control  
29 over the regional power market. Meanwhile, there is a regulatory gap: it is not that

1 FERC lacks jurisdiction, rather that the institutions -- primarily RTOs -- by which  
2 it plans to implement its programs and policies, such as market monitoring, are  
3 not yet in place. Mr. Higgins says that "the Commission should seek new, more  
4 rigorous market power tests to be performed with respect to the APS territory and  
5 TEP territory sub-markets..." (Testimony, page 5, lines 13-15) Apparently, the  
6 Commission should propose these tests to FERC, and it is FERC that should  
7 adjudicate these tests and determine what mitigation may be needed, but it is not  
8 clear how long it would take to accomplish this effort, or whether it would be  
9 effective.

10 **Q. Regarding market power in load pockets, Mr. Higgins argues that the**  
11 **Arizona Independent Scheduling Administrator (AISA) can take care of this**  
12 **problem until a regional RTO takes over. Do you agree?**

13 A. Staff witness Jerry Smith addresses this issue. His view is that the AISA may not  
14 be able to effectively address these problems.

15 **V. Reliant Resources Witness Curtis Kebler**

16 **Q. Please comment on Mr. Kebler's testimony.**

17 A. I would like to refer to four points made by Mr. Kebler. First, he clearly states that  
18 UDC generation asset transfer will create a market power problem. As he puts it:

19 The transfer of APS' generation assets...results in the concentration of  
20 available generation capacity within a single entity. In addition,  
21 existing transmission constraints limit the amount of external  
22 generation that can be imported into the Phoenix load center area.  
23 Absent structural remedies, these circumstances do not provide the  
24 conditions necessary for multiple suppliers to compete effectively in  
25 the provision of generation services on behalf of Standard Offer  
26 customers. (Testimony, at page 2, lines 14-20)

27 **Q. Please comment on Mr. Kebler's proposed solution.**

28 A. While Mr. Kebler provides a reasonable diagnosis of the horizontal market power  
29 problem in the wholesale electricity market in Arizona, he places excessive  
30 reliance on one cure, a capacity auction, something that is a feature of

1 restructuring in Texas. All I want to say about this at the present time is that it  
2 appears to be a Track B issue.

3 **Q. You referred to four points made by Mr. Kebler. The first is that he**  
4 **highlights the importance of the market power problem. What is the second?**

5 A. Mr. Kebler raises the possibility of "going forward with the asset transfer, but  
6 with something less than 100% of capacity initially." (Testimony, page 8, line 21  
7 to page 9, line 1) I believe this is not inconsistent with Staff recommendations.

8 **Q. What is Mr. Kebler's third point?**

9 A. Like Dr. Roach, he emphasizes the importance of making transmission available  
10 on equal terms to competitive suppliers. In his specific proposal for a capacity  
11 auction, Mr. Kebler points out that the capacity that is auctioned must be  
12 designated as Network Resources on behalf of native load customers. Staff  
13 witness Jerry Smith will address this issue.

14 **Q. What is Mr. Kebler's final point?**

15 A. Mr. Kebler states correctly that "Track A and Track B issues are necessarily inter-  
16 related." (Testimony, page 4, lines 5-7) This linkage is the reason why Staff is  
17 proposing that it may be necessary to make UDC generation asset transfer (a  
18 Track A issue), if permitted, conditional on not only the resolution of the market  
19 power problem (a Track A issue), but also on the resolution of certain issues, such  
20 as appropriate procurement, or creation of associated mitigation measures (Track  
21 B issues).

22 **VI. RUCO Witness Richard Rosen**

23 **Q. Please discuss Dr. Rosen's views regarding market power.**

24 A. Dr. Rosen has developed very strong arguments about the serious nature of the  
25 market power problem in wholesale electricity markets. He explains how market  
26 power can be exercised in many ways. His analysis is important for the  
27 Commission and consumers.

1 **Q. Does Dr. Rosen believe that the Commission can rely upon FERC regulation**  
2 **to ensure that wholesale electricity markets are competitive?**

3 A. No. Dr. Rosen is highly skeptical about FERC's approach to market power  
4 monitoring and mitigation. Looking back over the past two years, there is  
5 considerable evidence to support his skepticism. Looking forward, it remains to  
6 be seen whether Dr. Rosen's skepticism, or the optimistic views of AECC's  
7 witness Kevin Higgins, or something in between, turn out to be most accurate.

8 **Q. Has Dr. Rosen analyzed the market power situation in Arizona specifically?**

9 A. Yes. While his analysis of Arizona electricity markets is not supported by the kind  
10 of data that Staff witnesses Jerry Smith and David Schlissel, and Panda witness  
11 Craig Roach, have developed, he makes a persuasive case that the Commission  
12 should not take the problem of market power in Arizona lightly.

13 **VII. TEP Witnesses Pignatelli, Glaser and DeConcini**

14 ***James A. Pignatelli***

15 **Q. Mr. Pignatelli expresses considerable skepticism about retail electric**  
16 **competition. Please comment.**

17 A. I acknowledge that in this proceeding there is a wide range of reasonable views on  
18 this subject, and Mr. Pignatelli's views are certainly understandable. Thus far, the  
19 results of restructuring have been disappointing, and the risks are more evident  
20 than the benefits. However, the Commission embarked on the restructuring  
21 process several years ago, and, in my view, it should not change course without  
22 good reason. The survey of restructuring that I undertook recently for Staff, and  
23 which was contained in the Staff Report, showed that any given state's view of  
24 restructuring depends more than anything else on the condition of the *wholesale*  
25 electricity market. Where the wholesale market has functioned relatively  
26 smoothly, as in the Northeast, restructuring is generally continuing and the  
27 principal objective is to make energy markets more competitive. Where the  
28 wholesale market has been unstable, as in California and the other Western states

1 affected by the California crisis, restructuring has in some cases been abandoned  
2 or delayed.

3 **Q. Mr. Pignatelli describes the lack of effective competition in the *retail* electric**  
4 **market in Arizona to date. Please comment.**

5 A. My focus here is more on the threshold issue of competition in the *wholesale*  
6 market. Despite his skepticism about retail competition, Mr. Pignatelli is much  
7 more optimistic about the wholesale market, which I think is what the  
8 Commission is primarily concerned about as a Track A issue. He says in his  
9 Direct Testimony, at page 10, lines 2-7:

10 I believe that with the proper procedures and safeguards in place,  
11 competition among electric generators for *wholesale* sales of  
12 electricity can be viable within a short period of time. I believe that in  
13 order for there to be competition among electric generators for retail  
14 sales of electricity there first must be an established and functioning  
15 wholesale market.

16 Mr. Pignatelli also makes the important point that “one of the most critical  
17 components that will influence retail electric competition is generation price  
18 *volatility* in wholesale markets.” (page 12, lines 11-14, emphasis added) He  
19 continues:

20 Before a robust competitive retail market can exist in Arizona the art  
21 of balancing regional supply and demand without a regulatory  
22 mandate and delivery infrastructure issues must be addressed. For its  
23 part, the Commission can encourage the development of (a) additional  
24 generating resources and/or load management, which will be required  
25 to maintain a regional supply and demand balance; and (b) additional  
26 transmission infrastructure and new gas pipeline or railroad  
27 infrastructure that will be necessary to ensure adequate delivery  
28 capability to customers and fuel supply to generators.

29 Following this line of argument, I think the Commission should focus first on the  
30 conditions necessary to create a viable wholesale electricity market. Mr. Pignatelli  
31 has listed components of such a wholesale market. (Direct Testimony, page 10,  
32 lines 17-24)

1 **Q. On page 11 of his testimony, Mr. Pignatelli addresses the question of**  
2 **jurisdiction. Please comment.**

3 A. Mr. Pignatelli's understanding of the issue of jurisdiction over sales from divested  
4 or transferred generation assets to a UDC appears to be the same as mine.  
5 Namely, that FERC would have exclusive jurisdiction over the rates charged for  
6 wholesale sales of energy from those assets, but that, as Mr. Pignatelli says, "the  
7 Commission would have jurisdiction over the inclusion of those sales in rates in  
8 accordance with Arizona law."

9 **Q. Finally, turning to page 17, lines 17 et seq., of Mr. Pignatelli's testimony,**  
10 **please comment on his first recommendation regarding Track A issues.**

11 A. Mr. Pignatelli recommends that, "The Commission should issue findings of fact  
12 that detail the purported benefits of electric competition both on a retail and  
13 wholesale basis." If his intention is to get a specific quantitative assessment or  
14 cost-benefit analysis of competition, I think this is too much to expect of the  
15 Commission. In my opinion, it is not yet possible to quantify the benefits of retail  
16 competition. On the other hand, a mere listing of the benefits of retail competition  
17 is a somewhat empty exercise.

18 ***Steven J. Glaser***

19 **Q. Mr. Glaser argues that it will be difficult for TEP to comply with the**  
20 **deadline of December 31, 2002 for transferring ownership of its generation**  
21 **assets. Do you agree?**

22 A. Yes. I think it is appropriate for TEP to be given a variance from this deadline  
23 until the Commission has completed its review of the Electric Competition Rules.

**Michael J. DeConcini**

**Q. Mr. DeConcini says at page 8, lines 13-14 of his testimony, that “the current power market is competitive at a wholesale level and that a competitive generation market can and will provide adequate generation resources.” Do you agree?**

**A.** No, the Arizona and regional wholesale markets are not yet workably competitive and smoothly functioning. One has to look no further than the testimony of Mr. Pignatelli to see what is still needed to make the wholesale market workably competitive, and, as he emphasizes, to avoid price volatility by balancing regional supply and demand. (See Mr. Pignatelli’s testimony at pages 10 and 12, to which I referred earlier.) Further, Mr. DeConcini himself, when he lists key steps that “need to be taken in order to provide the opportunity for significant retail competition,” includes wholesale market steps such as relieving transmission constraints, implementing standard wholesale market rules, and instituting effective wholesale market monitoring.

## **VIII. APS Witnesses Davis and Hieronymus**

**Jack E. Davis**

**Q. In his Direct Testimony, Mr. Davis points out that the electric competition rules and APS settlement agreement provided for divestiture of APS generation. Do you agree with his contention, on page 2, lines 23 to 24, that “the reasons prompting these various actions by the Commission and/or Staff are as valid today as they were in 1998 and 1999”?**

**A.** No. While it is generally agreed that divestiture of generation assets is an important part of restructuring, and is favorable to competition in appropriate circumstances, it is clearly understood that this is only the case if competitive conditions exist in electricity markets. Otherwise, there is the danger that regulated monopolies would be replaced by unregulated monopolies, which would be the worst of both worlds.

**William H. Hieronymus**

**Q. Please turn to page 2, lines 13 to 15, of Dr. Hieronymus' testimony. He says that "the separation of APS's generation is in the public interest because the public interest is best served by the creation of a liquid and vibrant competitive wholesale market." Please comment.**

**A.** Dr. Hieronymus' statement confuses two separate issues -- separation and competition. Yes, along with other necessary features, separation can be part of a competitive wholesale market. However, absent those features, it could give an affiliate generator an opportunity to exercise considerable market power. To the extent there is market power in the restructured industry, the benefits of competition will not be realized. However, if and when the right conditions are in place, I agree with Dr. Hieronymus's view that "a competitive wholesale market is an essential underpinning of retail competition and, with it, the product and pricing innovations that retail competition can produce." (Direct Testimony, page 3, lines 8-10)

**Q. Do you agree with the remarks Dr. Hieronymus makes about market restructuring in other states on page 4 of his testimony?**

**A.** No, I believe his assessment of restructuring is too rosy and optimistic. While acknowledging that "recent events in areas near Arizona have tarnished the image of market restructuring, he makes two statements in the first full paragraph of page 4 that I do not agree with. First, he states that "allegations of misbehavior notwithstanding, the specific events of 2000-2001 in the WSCC arose from a very unusual combination of events that are unlikely to recur simultaneously.." While the extreme price volatility of the past two years may be unlikely to recur, there are still at least two causes of concern in Western markets. One is the lack of an established market structure, monitored by an effective RTO. The other is the continuing concern that, after the current period of adequate supply, a period of power shortages might ensue.



1 **Q. What is the other statement of Dr. Hieronymus's that you disagree with?**

2 A. Dr. Hieronymus says that "many other policy decision makers have not been  
3 fazed by the California experience. The movement away from the regulated  
4 monopoly model to the competitive market model has only marginally slackened  
5 its pace." This view does not quite achieve the right balance. The survey of other  
6 states that I conducted for the Staff, and is contained in the Staff Report, showed  
7 that regulators in the West have indeed been "fazed" by the California experience.  
8 In fact, New Mexico, Montana, Nevada, and California itself, have reversed, put  
9 on hold, or significantly delayed, restructuring. This experience is of immediate  
10 relevance to Arizona. Dr. Hieronymus himself notes that, "The states with  
11 approved retail access include one, California, where access has been suspended,  
12 and seven where it has been delayed since the events of 2000-2001." (Direct  
13 Testimony, page 7, line 20 to page 8, line 2) As I said earlier in my testimony, the  
14 best indicator of regulatory views about retail restructuring is the stability of the  
15 wholesale market. The top priority for Western states, where restructuring is  
16 effectively on hold, is surely to first achieve a stable, workably competitive,  
17 wholesale electricity market.

18 **Q. Beginning at the bottom of page 4 of his testimony, and in later sections, Dr.**  
19 **Hieronymus takes a fairly sanguine view about APS' ability to exercise**  
20 **market power. Do you agree that the Commission should not be too**  
21 **concerned about the problem?**

22 A. No. As I said in my Direct Testimony in this matter, I think the better approach is  
23 for the Commission to make a rebuttable presumption that a regulated utility,  
24 when its generation is deregulated, will have market power in its local market.  
25 The prudence of this approach is supported by the analyses of Staff witness Jerry  
26 Smith and David Schlissel, and by that of Dr. Craig Roach. Those analyses refer  
27 to horizontal market power.

1     **Q.     Do you have any comments on the problem of vertical market power?**

2     A.     Yes. I note that Dr. Hieronymus states that, while he has focused on horizontal  
3           market power, “vertical market power has far greater potential to destroy  
4           competitive markets.” (Testimony, page 26, lines 16-18) He believes that the  
5           Commission, and “FERC in its orders and its RTO policy” have already focused  
6           “strongly” on this issue. On page 22, lines 14-18 of his Direct Testimony, Dr.  
7           Hieronymus says that “RTO formation has taken on a new urgency since RTO  
8           market power monitoring and mitigation is seen as the principal ‘front line’  
9           defence against both the exercise of market power and gaming of inadequate or  
10          inefficient market rules.” As Staff witness Paul Peterson explains, it will take  
11          some time before the Commission can have full confidence in the RTO  
12          arrangements in the Southwest. Meanwhile, the Commission will have to be  
13          vigilant to ensure that the affiliate relationship between a UDC and its  
14          transmission and generation affiliates does not give rise to the exercise of vertical  
15          market power.

16    **Q.     What kinds of abuses do you have in mind?**

17    A.     If a UDC buys back power from its generation affiliate, there is obviously  
18           significant potential for favoring the affiliate over competitors. Secondly, as APS  
19           witnesses have pointed out, the transmission system of a vertically-integrated  
20           utility is not designed to support large amounts of competitive sales and purchases  
21           of electricity. It will be important for the UDC or its transmission affiliate to be  
22           required to adequately build out the transmission system for a competitive market,  
23           even though that construction program could be costly and could undermine the  
24           market advantage of the affiliate generator.

25

---

1 **IX. Concluding Remarks**

2 **Q. Do you have any concluding remarks?**

3 A. Yes. While Staff is not recommending that generation asset transfer be denied, I  
4 believe that, if transfer is permitted, it should be subject to appropriate conditions,  
5 as set out on page 5 of Staff witness Matthew Rowell's testimony, including the  
6 filing of a market power study and market power mitigation plan. The  
7 Commission should ensure that generation rates for Standard Offer customers are  
8 just and reasonable. Given the current state of Western wholesale markets, I don't  
9 believe that during this transition period wholesale markets can be counted on as a  
10 reliable yardstick for just and reasonable rates.

11 **Q. Does this complete your testimony?**

12 A. Yes.

**REBUTTAL**  
**TESTIMONY**  
**OF**  
**MATTHEW ROWELL**  
**JERRY D. SMITH**

**DOCKET NO. E-00000A-02-0051**

**JUNE 11, 2002**

**BEFORE THE ARIZONA CORPORATION COMMISSION**

**WILLIAM A. MUNDELL**

Chairman

**JIM IRVIN**

Commissioner

**MARC SPITZER**

Commissioner

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<u>ADMINISTRATOR.</u> )	
IN THE MATTER OF TUCSON ELECTRIC )	DOCKET NO. E-01933A-02-0069
POWER COMPANY'S APPLICATION FOR A )	
VARIANCE OF CERTAIN ELECTRIC )	
<u>COMPETITION RULES COMPLIANCE DATES.</u> )	
IN THE MATTER OF THE APPLICATION OF )	DOCKET NO. E-01933A-98-0471
TUCSON ELECTRIC POWER COMPANY FOR )	
APPROVAL OF ITS STRANDED COST )	
<u>RECOVERY.</u> )	

REBUTTAL

TESTIMONY

OF

MATTHEW ROWELL

CHIEF: TELECOMMUNICATIONS AND ENERGY SECTION

UTILITIES DIVISION

JUNE 11, 2002

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**INTRODUCTION**

**Q. Please state your name and business address for the record.**

A. My name is Matthew Rowell. My business address is Arizona Corporation Commission, 1200 West Washington Street, Phoenix, AZ 85007.

**Q. Are you the same Matthew Rowell who filed direct testimony in this proceeding on May 29, 2002?**

A. Yes.

**Q. What is the purpose of your testimony?**

A. The purpose of my testimony is to discuss some of the points raised in the initial testimonies of Jack E. Davis, for APS and Michael J. DeConcini, for TEP. Specifically, Mr. Davis' testimony starting at page 3, line 20 addresses several issues regarding the transfer of APS' generation assets to PWEC and Mr. DeConcini's testimony starting at page 4, line 11 discusses several issues regarding the wholesale electric market place.

**TRANSFER AND SEPARATION OF GENERATION ASSETS**

**Q. On page four line fifteen of his testimony Mr. Davis states that, "...divestiture was fully subject to the review and comment process of Arizona rulemaking ... not once but on at least four separate occasions." Can you comment on Mr. Davis' assertion that the Commission has already approved the divestiture of APS' assets four times?**

A. Yes. Mr. Davis cites four Commission decisions in his discussion, 61071 (August 10, 1998), 61272 (December 11, 1998), 61969 (September 9, 1999), and 61973 (October 6, 1999). Mr. Davis implies that transfer and separation of assets *as currently*

1        *planned* by APS was approved by the Commission in each of those four decisions. I  
2        would like to clarify that at the time of the earlier two decisions (61071 and 61272)  
3        the Commission was still contemplating a divestiture of generation assets to  
4        unaffiliated entities.

5  
6        **Q.    Are there any other Commission decisions that may be of interest regarding the**  
7        **transfer of separation of assets?**

8        A.    Yes, in decision number 61677 dated April 27, 1999, the Commission established that  
9        divestiture of assets to unaffiliated entities was one method to determine stranded  
10       cost. Thus, even at that late date the Commission was still contemplating a  
11       divestiture of generation assets to unaffiliated entities.

12  
13       **Q.    Given that the Commission did approve the transfer of assets to an affiliate in**  
14       **decisions 61969 and 61973 why does Staff believe that it is appropriate to**  
15       **reexamine that issue now?**

16       A.    Those decisions were entered into in September and October of 1999 respectively. A  
17       lot has happened since then that should and has given us reason to pause. The  
18       disaster in California that unfolded over 2000 and 2001 has already been discussed at  
19       length and I will not explain it in detail here. However, it would be unwise for this  
20       Commission to move forward without even considering this dramatic event. While  
21       Staff recognizes that there are significant differences between the California and  
22       Arizona restructuring plans, Staff still believes that it is appropriate to learn from the  
23       mistakes of our neighbors. The California crisis highlighted the fact that flawed  
24       regulatory policy can have dramatic negative effects; thus, it would be difficult for  
25       Staff to recommend moving forward without a careful assessment of Arizona's  
26       restructuring plan. In addition to California, restructuring efforts across the country



1 have had decidedly mixed results. (See the rebuttal testimony of Neil Talbot and the  
2 Staff report filed in this docket on March 22, 2002 for discussion.) Given the  
3 difficulties encountered by many states since 1999, Staff believes that it is appropriate  
4 to reexamine Arizona's restructuring plan.  
5

6 **Q. In your previous answer you cited problems in other states, but are there any**  
7 **issues directly related to Arizona that Staff believes warrant a reexamination of**  
8 **the transfer and separation of assets?**

9 A. Yes. There have been two developments since 1999 that have influenced Staff's  
10 thinking on this matter. First, there has been virtually no retail competition in  
11 Arizona. Currently, Staff is unaware of *any* customers who are taking service from a  
12 competitive electric service provider ("ESP") in Arizona. Retail competition was the  
13 cornerstone of this Commission's restructuring efforts. Countless hours were spent  
14 by the parties involved in workshops and other meetings to develop the necessary  
15 underpinnings for retail electric competition. At this point, it all seems to have been  
16 for naught. Also, one of the principal arguments in favor of the transfer of assets is  
17 that it would help to prevent cross subsidization of the utilities' competitive retail  
18 affiliate. The utter lack of retail competition makes this argument essentially  
19 irrelevant.  
20

21 The second development that has influenced Staff's thinking on these matters is the  
22 October 18, 2001, filing by APS that requested a variance to A.A.C. R14-2-1606(B)  
23 and requested that the Commission approve a long term Purchase Power Agreement  
24 ("PPA"). In that filing, APS asserts that complying with the competitive power  
25 procurement requirements of Rule 1606(B) would be impossible. In other words,  
26 APS claimed that the competitive wholesale market would not be able to provide

1 reasonably priced and reliable power for its Standard Offer customers. Additionally,  
2 new wholesale market structures (such as RTOs) have been developing only slowly in  
3 the West, and the FERC is still in the process of developing what it calls its Standard  
4 Market Design.

5  
6 These factors taken together, the complete lack of retail competition and the assertion  
7 by APS that wholesale competition is unlikely to afford consumers any advantages in  
8 the near future, certainly provide us with enough motivation to reexamine Arizona's  
9 plan to develop retail and wholesale competition.

10  
11 **Q. On page ten, lines seven through ten of Mr. Davis' testimony, Mr. Davis argues**  
12 **that "it would make little sense for a still vertically-integrated utility to bid for**  
13 **resources it already owns..." Does Staff agree with Mr. Davis' assessment**  
14 **regarding competitive bidding in the absence of the transfer of assets?**

15 **A.** Staff believes that there are ways to provide for competitive bidding even if the  
16 transfer of assets does not occur. Mr. Davis is right that it would not make sense for  
17 APS to bid for resources it already owns. However, if it is more economical for a  
18 utility to purchase power than it is to run its own generation, the utility should (and  
19 historically utilities have) purchased power rather than run their own plants. A  
20 bidding process could certainly be set up to facilitate such purchases.

21  
22 Additionally, in instances where the utility is short power, a competitive bidding  
23 process can be used to purchase the power in excess of the utilities' current  
24 generation capacity. Both Florida and Colorado have implemented such a process.

25

1    **THE WHOLESALE ELECTRIC POWER MARKET**

2    **Q.    On page nine, line thirteen of Michael J. DeConcini's initial testimony he states**  
3       **that "a portfolio approach to the purchase of wholesale generation by the UDC"**  
4       **is important and advantageous. Does Staff agree with this assertion?**

5    A.    Yes, Staff strongly agrees with the portfolio concept advocated by Mr. DeConcini.  
6       Staff agrees that such an approach will lessen price volatility and provide appropriate  
7       incentives to wholesale generators. California's reliance on the spot market only was  
8       proven to be unfortunate. This issue should be developed further in Track B of this  
9       proceeding.

10  
11   **Q.    Does this conclude your testimony?**

12   A.    Yes, it does.

**BEFORE THE ARIZONA CORPORATION COMMISSION**

**WILLIAM A. MUNDELL**

Chairman

**JIM IRVIN**

Commissioner

**MARC SPITZER**

Commissioner

IN THE MATTER OF THE GENERIC )	DOCKET NO. E-00000A-02-0051
PROCEEDINGS CONCERNING ELECTRIC )	
<u>RESTRUCTURING ISSUES.</u> )	
IN THE MATTER OF ARIZONA PUBLIC )	DOCKET NO. E-01345A-01-0822
SERVICE COMPANY'S REQUEST FOR A )	
VARIANCE OF CERTAIN REQUIREMENTS OF )	
<u>A.A.C. R14-2-1606.</u> )	
IN THE MATTER OF THE GENERIC )	DOCKET NO. E-00000A-01-0630
PROCEEDINGS CONCERNING THE ARIZONA )	
INDEPENDENT SCHEDULING )	
<u>ADMINISTRATOR.</u> )	
IN THE MATTER OF TUCSON ELECTRIC )	DOCKET NO. E-01933A-02-0069
POWER COMPANY'S APPLICATION FOR A )	
VARIANCE OF CERTAIN ELECTRIC )	
<u>COMPETITION RULES COMPLIANCE DATES.</u> )	
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TUCSON ELECTRIC POWER COMPANY FOR )	
APPROVAL OF ITS STRANDED COST )	
<u>RECOVERY.</u> )	

REBUTTAL

TESTIMONY

OF

JERRY D. SMITH

ELECTRIC UTILITIES ENGINEER

UTILITIES DIVISION

June 11, 2002

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1 **INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. Jerry D. Smith, 1200 West Washington Street, Phoenix, Arizona 85007.

4  
5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by the Arizona Corporation Commission ("Commission") as an Electric  
7 Utilities Engineer for the Utilities Division.

8  
9 **Q. Have you previously submitted direct testimony in these proceedings?**

10 A. Yes.

11  
12 **PURPOSE OF REBUTTAL TESTIMONY**

13 **Q. What is the purpose of your rebuttal testimony in these proceedings?**

14 A. My rebuttal testimony will respond to specific segments of testimony provided by Mr.  
15 Michael J. DeConcini, Mr. William H. Hieronymus, Mr. Kevin C. Higgins, Dr. Craig R.  
16 Roach, and Mr. Curtis L. Kebler. My rebuttal testimony focuses on the following topics:  
17 1. Relieving transmission constraints,  
18 2. Market power tests regarding local transmission constraints,  
19 3. AzISA and Westconnect mitigation of reliability must-run ("RMR") generation, and  
20 4. Network Resources and associated transmission rights.

21  
22 **Q. Please summarize the contents of your rebuttal testimony.**

23 A. My rebuttal testimony deals exclusively with transmission and transmission service. The  
24 first conclusion derived from my rebuttal is that others support Staff's view that local  
25 transmission constraints need to be resolved. Transmission improvements are needed to  
26 resolve Staff's reliability concerns, avoid vertical market power associated with  
27 transmission, and facilitate the emergence of a competitive wholesale market and retail  
28 competition. The need for mitigating transmission related vertical market power

1 complements and supports my direct testimony that expedient resolution of transmission  
2 constraints is paramount to ensuring reliable service to consumers at just and reasonable  
3 rates.

4  
5 The second conclusion is that established market power tests fail to adequately address  
6 transmission constraints. Furthermore, FERC's solutions to transmission market power  
7 are not likely to address local transmission constraints. Therefore, Staff recommends  
8 adoption and compliance with the two reliability principles proposed in my direct  
9 testimony as the best means for eventual elimination of local transmission constraints.<sup>1</sup>  
10 Such action will consequently mitigate local transmission market power.

11  
12 Thirdly, Staff concludes that reliance on the AISA and Westconnect protocols as the sole  
13 mitigation measures for RMR generation requirements caused by local transmission  
14 import constraints is not in the public's interest. The protocols are effective operational  
15 tools for managing RMR generation requirements but were never designed nor intended  
16 as market power mitigation measures. Staff recommends three actions to mitigate RMR  
17 generation including constructing needed transmission facilities as soon as practical if the  
18 Commission finds a UDC's RMR generation strategy to not be in consumers' best  
19 interest.

20  
21 The final conclusion of my rebuttal testimony is that the proper and non-discriminatory  
22 designation of power plants as Network Resources and use of available transmission  
23 capacity for Network Integrated Transmission Service is critical to emergence of a  
24 competitive wholesale market in Arizona. While FERC proposed Energy Resource  
25 Interconnection Service and Network Resource Interconnection Service may be in the  
26 best interest of generators, they may not be in the best interest of Arizona's consumers.  
27 Therefore Staff endorsement of proposed power plant interconnections is contingent upon  
28 resolution of any transmission delivery problems associated with the interconnection.

---

<sup>1</sup> Jerry D. Smith, at lines 10-16, page 25.

1       Once again, adoption and compliance with the two reliability principles proposed in my  
2       direct testimony offers the best means of ensuring a merchant's delivery of power to local  
3       markets.

4  
5       **RELIEVING TRANSMISSION CONSTRAINTS**

6       **Q.     Do others provide testimony supporting Staff's proposition that local transmission**  
7       **constraints need to be resolved to ensure reliable service to Arizona's consumers at**  
8       **just and reasonable rates via a competitive wholesale market?**

9       A.     Yes. Mr. DeConcini indicates that he broadly agrees with my testimony in the APS  
10       variance request proceedings (Docket No. E-01345A-01-0822) regarding transmission  
11       access and relieving constraints.<sup>2</sup> He further states that relieving transmission constraints  
12       is one of four key steps that needs to be taken in order to provide the opportunity for  
13       significant retail competition.<sup>3</sup> However, Mr. DeConcini does not believe that all  
14       transmission constraints must be eliminated for effective competition to exist. This  
15       statement seems to align well with Staff's position that there may be occasions when  
16       generation is justified as a solution to a transmission constraint.<sup>4</sup>

17       Mr. Hieronymus states that vertical market power has far greater potential to destroy  
18       competitive electricity markets than horizontal market power.<sup>5</sup> He further describes a  
19       transmission system owner's use of its monopoly over an "essential facility" to exclude  
20       or disadvantage competitors in related activities such as generation or serving retail  
21       customers as a relevant example of vertical market power.<sup>6</sup> Furthermore, Mr.  
22       Hieronymus acknowledges that in earlier testimony he conceded that some APS  
23       generating units are RMR and could exercise market power.<sup>7</sup>

24       ...

25       ...

26  
27       <sup>2</sup> Direct Testimony, Michael J. DeConcini, May 29, 2002, Docket No. E-00000A-02-0051, et. al, page 9.

28       <sup>3</sup> Ibid., at page 8.

<sup>4</sup> Direct Testimony, Jerry D. Smith, May 29, 2002, Docket E-00000A-0051, et. al, at page 21-22.

<sup>5</sup> Direct Testimony, William H. Hieronymus, May 29, 2002, Docket No. E-00000A-02-0051, et. al, at page 26.

<sup>6</sup> Ibid., at line 13-15, page 26.

<sup>7</sup> Ibid., at page 28.



1 Mr. Hieronymus' testimony corroborates Mr. David A. Schlissel's testimony for Staff  
2 regarding how APS and TEP transmission constraints create such vertical market power.<sup>8</sup>  
3 Mitigation of market power caused by transmission constraints is necessary for a  
4 competitive wholesale market to emerge in Arizona. This need for mitigating vertical  
5 market power complements and supports my testimony that expedient resolution of  
6 transmission constraints are paramount to ensuring reliable service to consumers at just  
7 and reasonable rates.

8  
9 **MARKET POWER TEST REGARDING TRANSMISSION CONSTRAINTS**

10 **Q. How does your prior testimony regarding system reliability relate to the subject of**  
11 **market power as contained in your rebuttal testimony?**

12 A. My direct testimony focused on the capability of the existing and planned Arizona energy  
13 infrastructure to provide reliable service at just and reasonable rates via a competitive  
14 wholesale market. Others have testified that transmission constraints identified in my  
15 earlier testimony in the APS Variance proceeding also provide the physical opportunity  
16 for market power to be exhibited. Although I am not an economist and therefore do not  
17 purport to conduct an economic analysis of market power, I do have concerns that the  
18 various market power tests do not include the proper system elements specifically, these  
19 tests do not adequately include the effects of transmission constraints. I further contend  
20 that resolving Staff's reliability concerns is the best means of mitigating any local  
21 transmission system related market power.

22 **Q. Is there testimony supporting use of particular market power tests to address**  
23 **transmission constraints?**

24 A. Several parties to this case cite tests used to address horizontal market power for supply.  
25 However, these market power test models seem ill suited to addressing local transmission  
26 constraints and load pockets within a utility's transmission network. Although my  
27 testimony does not analyze the results of the application of various market power tests, I  
28

---

<sup>8</sup> Direct Testimony, David A. Schlissel, May 29, 2002, Docket E-00000A-02-0051, et. al, pages 7-8, and 13.

1 will cite the testimony of others to show that none of these tests purports to account for  
2 all the efforts of transmission constraints.

3  
4 Several parties acknowledge that FERC's "hub and spoke" test that utilizes the  
5 Herfindahl-Hirshman Index ("HHI") addresses market concentration ignores  
6 transmission constraints.<sup>9</sup> Dr. Roach<sup>10</sup> and Mr. Higgins<sup>11</sup> contend the supply margin  
7 assessment ("SMA") or "pivotal test" adopted by FERC as an interim test does consider  
8 transmission import limitations to the relevant market but fails to consider reserves and  
9 transmission constraints or load pockets within the market area. Dr. Roach contends that  
10 generation that cannot compete within the market should be excluded from the SMA test.  
11 On the other hand, Mr. Higgins recommends that the California ISO ("CAISO") Residual  
12 Supply Index ("RSI") is a more accurate model for determining market power on an  
13 hourly basis. The RSI purports to resolve the reserve modeling deficiency of the SMA  
14 model. However, it still lacks the ability to adequately consider transmission constraints.  
15 Therefore, Staff concludes that no formal market power test has been presented in this  
16 proceeding to adequately address the effects of transmission constraints on the market.

17  
18 Staff contends that compliance with the two reliability principles contained in my direct  
19 testimony offers means for the eventual elimination of local transmission constraints.<sup>12</sup>  
20 Parties are not likely to find Staff's reliability principles appealing because they will  
21 require construction of new transmission lines. That is fundamentally why a game of  
22 chicken is being played by the generation and transmission sectors of the industry.  
23 Continuing such action will simply perpetuate a dysfunctional wholesale market and is  
24 not in consumers' best interest.

25 ...

26 ...

27  
28 <sup>9</sup> William H. Hieronymus, at page 31.

<sup>10</sup> Craig R. Roach, Ph.D., at page 10.

<sup>11</sup> Direct Testimony, Kevin C. Higgins, May 29, 2002, Docket No. E-00000A-02-0051, et. al, at pages 12-14.

<sup>12</sup> Jerry D. Smith, at lines 7-16, page 25.

1 **AISA AND WESTCONNECT MITIGATION OF RMR GENERATION**

2 **Q. How do parties to this case suggest market power within load pockets be mitigated?**

3 A. According to Mr. Hieronymus, the potential market power inherent in must-run units will  
4 be mitigated by APS' Open Access Transmission Tariff ("OATT") provisions and by a  
5 future RTO's market power mitigation measures.<sup>13</sup> He is indirectly referring to the AISA  
6 and Westconnect RMR protocols. These protocols apply to all transmission entities that  
7 are members of the two respective transmission organizations and parties that take  
8 transmission service over such transmission owners' system. Both APS and TEP are  
9 founding members of the two transmission organizations. Mr. Higgins offers an effective  
10 description of the two must-run protocols in his testimony.<sup>14</sup>

11

12 **Q. Are you familiar with the AISA and Westconnect RMR protocols?**

13 A. Yes. I participated in and monitored the AISA Operating Committee's development of  
14 the AISA protocols. I also served as an Ex-Officio Board member during DesertSTAR's  
15 development of its protocols that have since been adopted by Westconnect in its RTO  
16 filing at FERC.

17

18 **Q. Does Staff believe the AISA and Westconnect protocols effectively mitigate RMR  
19 generation requirements?**

20 A. Staff believes the AISA and Westconnect protocols are effective operational tools  
21 assuring nondiscriminatory access to constrained load pockets at nondiscriminatory prices  
22 during conditions that require RMR generation. However, these protocols were never  
23 designed nor intended as market power mitigation measures. While the protocols are  
24 based upon sound market practices, Staff disagrees with Mr. Higgins assertion that the  
25 two protocols adequately mitigate load pocket market power.<sup>15</sup>

26 ...

27 ...

28 <sup>13</sup> William H. Hieronymus, at line 11, page 40.

<sup>14</sup> Kevin C. Higgins, at pages 8-9.

<sup>15</sup> Ibid., page 9.

1 Reliance solely on these protocols as market mitigation measures is not in the public's  
2 interest. The protocols simply perpetuate the status quo; they do nothing to displace  
3 existing RMR units. Restricting a load pocket's access to the larger wholesale market  
4 may not be in Arizona consumers' best interest when a RMR generator's cost exceeds the  
5 market price of generation external to the constrained load pocket. Similarly the two  
6 protocols do not adequately address reliability and risk of local supply concerns or assure  
7 the best price for the UDC's consumers.

8  
9 Staff acknowledges that both RMR protocols are attempting to level the playing field for  
10 all parties trying to schedule energy into the constrained load pocket. The two RMR  
11 protocols in large part are non-discriminatory relative to pricing of RMR generation and  
12 in providing non-discriminatory transmission access. However, the concepts of non-  
13 discriminatory transmission access and non-discriminatory pricing within a transmission  
14 constrained load pocket are fundamentally different than the concept of market power  
15 mitigation. The protocols do not address the fundamental issue of vertical market power  
16 that exists when the transmission provider or its affiliates own the local must-run or must-  
17 offer generation.

18  
19 Fundamental to this vertical market power argument is the fact that the transmission  
20 provider has elected to rely on RMR generation rather than build additional transmission  
21 import capacity to the load pocket.<sup>16</sup> This assures that local generation has access to the  
22 local market irrespective of price. Such action also precludes the opportunity to purchase  
23 power for the load pocket from power plants external to the constraint for the duration of  
24 the transmission constraint. Restricting access to the larger wholesale market may not be  
25 in Arizona consumers' best interest when RMR generation costs exceed the market price  
26 of generation external to the constrained load pocket.

27  
28  

---

<sup>16</sup> Rebuttal Testimony, Cary Deise, APS Request for Variance to Certain Requirements of A.A.C. R14-2-1606, April 22, 2002, pages 7-10.

1    **Q.    How do the AISA and Westconnect protocols differ regarding pricing of RMR**  
2    **generation requirements and is such pricing in Arizona consumers' best interest?**

3    The AISA protocol requires generation owners internal to the constraint to offer to sell to  
4    scheduling coordinators, *on a cost-of-service basis*, sufficient generation to serve load  
5    within the load pocket that exceeds the areas' transmission import capability. When cost-  
6    of-service prices of RMR generation exceed the price of generation external to the  
7    constraint, the AISA protocol simply caps the price of RMR generation and manages  
8    market participants' behavior in a non-discriminatory manner.

9  
10    The Westconnect protocol allows the generation owner to sell *at market based prices*  
11    prevailing external to the load pocket. This protocol once again sets a price cap but does  
12    not necessarily resolve the exertion of market power. FERC has not acted on the  
13    Westconnect protocol but has not allowed market based pricing in a number of cases that  
14    failed the SMA test.

15  
16    Neither of the two protocols approaches pricing from the context of the UDC's obligation  
17    to provide reliable service to its customers at just and reasonable rates. Neither protocol  
18    provides a means whereby RMR units are displaced if other units outside the constraint  
19    can provide power at a lower price. Neither protocol factors in the risk or possible  
20    deterioration of reliable service to consumers if the local generation fails to be available.  
21    Such an event occurred in the Phoenix area in July 2001 when a rolling blackout was  
22    narrowly avoided. Even though the two protocols offer non-discriminatory pricing of  
23    RMR generation they may not assure the best price for the UDC's consumers. For these  
24    reasons, the provisions of the two RMR protocols do not by themselves sufficiently  
25    mitigate market power.

26    ...

27    ...

28    ...

1 **Q. How do Staff's recommended RMR generation mitigation measures differ from the**  
2 **AISA and Westconnect protocols?**

3 A. Staff's recommendations for mitigating RMR generation requirements are based on the  
4 premise that the UDC has an obligation to reliably serve its customers at just and  
5 reasonable rates. Staff has recommended three actions to mitigate RMR generation.  
6 Staff recommends that RMR units not be transferred until the Commission has  
7 considered their must-run status and determined that they no longer have the potential to  
8 exercise market power.<sup>17</sup> Such a determination would emerge from the market power  
9 studies and mitigation plans that Staff recommends be filed prior to transfer of any  
10 generation asset.<sup>18</sup> Staff also recommends that jurisdictional utilities proceed to resolve  
11 any transmission import constraint by constructing needed transmission facilities as soon  
12 as practical if the Commission finds their RMR generation strategy to not be in  
13 consumers' best interest.<sup>19</sup> Staff supports use of the AISA and Westconnect RMR  
14 protocols to operationally manage RMR generation requirements when such system  
15 conditions exist.

16  
17 **NETWORK RESOURCES AND ASSOCIATED TRANSMISSION RIGHTS**

18 **Q. What are network transmission service and Network Resources?**

19 A. Network Integrated Transmission Service ("NITS") and Retail Network Integrated  
20 Transmission Service ("RNITS") provisions are defined by the respective utility's OATT  
21 filed and approved by FERC. Network Resources are generating units interconnected  
22 within the transmission network designated by the Network Customer for service to their  
23 Network Load via a network transmission service agreement. Network transmission  
24 service, as currently defined, is intended to be used by Network Customers for the  
25 purpose of delivering energy from designated Network Resources and other non-  
26 designated generating resources to their Network Load.

27  
28 <sup>17</sup> Direct Testimony, Matthew Rowell, at pages 12-13.

<sup>18</sup> Ibid., at pages 10-12.

<sup>19</sup> Jerry D. Smith, at page 26.

1 **Q. Why are network transmission service and Network Resource designation**  
2 **important to these proceedings?**

3 A. The proper and non-discriminatory designation of power plants as Network Resources  
4 and use of available transmission capacity ("ATC") for Network Integrated Transmission  
5 Service is critical to emergence of a competitive wholesale market and retail competition  
6 in Arizona. There are pre-existing committed uses of the total transmission capacity  
7 ("TTC"). Among the committed uses is transmission service to native load or standard  
8 offer customers in each utility's service area. ATC is what remains for others non-  
9 discriminatory use after subtracting all committed uses. This is what gets posted on a  
10 utility's OASIS. Similarly, utilities have already designated existing owned plants as  
11 Network Resources to serve their native Network Load. This allows the respective utility  
12 to take NITS or RNITS transmission service via the transmission provider's tariff.

13  
14 Very little ATC is available for use by the competitive wholesale market or Electric  
15 Service Providers ("ESP") desiring to offer competitive retail service. This is the reason  
16 that the AISA has an interim protocol that sets aside up to 300 MW of RNITS for ESPs.  
17 Many New merchant power plants have chosen to not invest in transmission  
18 enhancements. Therefore, they face the same delivery restrictions of an ESP.

19  
20 It is for the above reasons that merchant power plants are anxious to see the transmission  
21 providers drop the Network Resource designation for existing plants when they fail to be  
22 selected by the UDC during the competitive solicitation process. Similarly, the merchant  
23 plants want to make sure the NITS and RNITS committed uses for standard offer  
24 customers are available for network transmission service delivery from plants that are  
25 selected by the same competitive process. Otherwise, the transmission system becomes a  
26 barrier for the competitive wholesale market's delivery to a UDC's standard offer load.

27 ..

28 ...

1 **Q. Does Staff agree with the position taken by Panda and Reliant regarding**  
2 **designation of power plants as Network Resources and associated disposition of**  
3 **network transmission service rights?**

4 A. The arguments offered by Panda and Reliant regarding designation of plants as Network  
5 Resource and use of network transmission service do have merit but are also very self-  
6 serving. Staff agrees with Mr. Kebler<sup>20</sup> that network transmission service rights are not  
7 assigned to generation assets. The Network Customer that has Network Load is the party  
8 that seeks and retains network transmission service rights. Therefore, generating assets  
9 owned by APS, TEP and their affiliates that are not selected via the competitive  
10 procurement process must obtain transmission service as necessary for power delivery to  
11 other than standard offer customers.

12  
13 Reliant's claim that APS must designate Network Resources on behalf of its native load  
14 customers in the same manner as any other customers taking network transmission  
15 service under their tariff is accurate. But Reliant's argument is somewhat flawed in its  
16 application.<sup>21</sup> Reliant presumes that winners of the competitive procurement will  
17 necessarily be interconnected to the utility's transmission network and thus must be  
18 designated as Network Resources. Staff disagrees. For example, designation of a plant in  
19 Nevada as a Network Resource for APS seems inappropriate to Staff since such a plant is  
20 not located within the APS transmission network.

21  
22 The Network Resource designation is not applicable for sales to third parties or for  
23 service to other than Network Load. Therefore, Staff also disagrees with Panda's  
24 supposition that APS should be required to designate as Network Resource all generation  
25 with an interconnection agreement or for whom interconnection studies have been  
26 completed.<sup>22</sup> Such a requirement would only be practical if the full output of each plant  
27 were dedicated for standard offer service to the UDC. Staff agrees that a power plant can

28 <sup>20</sup> Curtis L. Kebler, at line 18, page 11.

<sup>21</sup> Ibid., at page 11.

<sup>22</sup> Craig R. Roach, Ph.D., at line 8, page 18.



1 be designated as a Network Resource if it has a Network Load and network transmission  
2 service has been established. Such a designation may even be desirable. For example,  
3 Staff understands PWEC's Redhawk units 1 and 2 have been designated as Network  
4 Resources for APS.

5  
6 Dr. Roach also espouses the merits of the two types of interconnection services contained  
7 in FERC's pending Interconnection NOPR.<sup>23</sup> The generation industry has done an  
8 excellent job of lobbying FERC for such interconnection services. However, neither the  
9 Energy Resource Interconnection Service nor the Network Resource Interconnection  
10 Service referenced by Dr. Roach considers the reliability impacts of such  
11 interconnections. These two types of interconnection services as currently defined are  
12 simply a means of generators avoiding any obligations for transmission improvements.<sup>24</sup>  
13 While such interconnections may be in the best interest of the generators, they may not be  
14 in the best interest of Arizona's consumers.

15  
16 Staff has consistently taken exception to interconnections such as proposed by Dr. Roach  
17 throughout numerous power plant siting cases over the last two years. The fact that  
18 power plants have chosen to not ensure delivery to a market is a risk they alone must  
19 bear. In fact, Staff has taken a position in this generic electric restructuring case that both  
20 Transmission Providers and Plant Owners have an obligation to resolve transmission  
21 delivery problems.<sup>25</sup> Adherence to such proposed reliability principles is the foundation  
22 for recommendations contained in my direct testimony.

23  
24 **Q. Does that conclude your testimony?**

25 **A. Yes, it does.**  
26  
27

28 <sup>23</sup> Ibid., at line 16, page 18.

<sup>24</sup> Ibid., at lines 1-3, page 19.

<sup>25</sup> Jerry D. Smith, at page 25.